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Minnesota Pollution Control Agency

1998 LEGISLATIVE UPDATE

FY99 Initiative for Investigating Malformed Frogs

Introduction

The investigation into Minnesota's malformed frogs has grown from a handful of reports in 1995 to a national concern about what may be causing frogs to develop abnormally not only here but across the United States. While there's been much discussion and speculation in the news media, there is not yet a scientific consensus on what may be causing this phenomenon. The scope of possibilities may be narrowed once extensive data from 1997 field work can be fully analyzed

The state of Minnesota intends to continue working to find answers to this question, with the Minnesota Pollution Control Agency (MPCA) leading the investigation within Minnesota. We recognize that beyond the question of what is causing frogs to develop abnormally are other questions about the potential for human health risks and what actions are appropriate to address this pressing environmental problem. The question of what's wrong with the frogs has become one of the most high-profile scientific stories in years.

This fact sheet explains the MPCA's legislative initiative for funding the frog investigation for Fiscal Year 1999.

Background

In late September 1997 the MPCA and National Institute of Environmental Health Sciences (NIEHS) held a joint press conference in St. Paul to announce an important discovery in the frog investigation. The news involved studies of water from several wetland sites in Minnesota where high numbers of malformed frogs have been found in the last two years. The results strongly indicate that something in the water at these sites can cause abnormalities in frogs in the laboratory.

This finding, while by no means a providing a definitive answer to the frogs mystery, has added an important dimension to Minnesota's investigation. This year's initiative builds on this work, as well as other work in progress, as we continue to investigate the extent and cause of frog abnormalities in the state.

The initiative requests $500,000 for FY99, for three positions and for field work and laboratory analysis to support the coordinated efforts of a research team of state and federal scientists and University of Minnesota (U of M) staff. The scope of the frog problem goes far beyond the borders of Minnesota and requires the coordinated efforts of many parties. To this end, the MPCA has been very successful in leveraging research partnerships.

Our work plan for the future continues to emphasize partnering with agencies and institutions which can bring additional technical resources to the investigation. In addition to the U of M, the MPCA currently has cooperative work arrangements with the NIEHS, the United States Geological Survey, and the National Wildlife Health Center. We are pursuing a similar arrangement with the U.S. Environmental Protection Agency.

The Legislature also provided much-needed funding for this investigation through two previous initiatives. A grant of $123,000 from the Legislative Commission on Minnesota Resources in 1996 gave a critical jump-start to the investigation. Last session,

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a Governor's initiative provided another $200,000 for the FY98-99 biennium for frogs research. These funds made possible intensive field efforts in 1996 and 1997, and have been vital to increasing our understanding of this problem which has taken on national significance.

Larger national effort

Minnesota's efforts are part of a larger national effort involving many other researchers. Because investigators must cast such a wide net in searching for clues, the work is multidisciplinary in nature. The MPCA is looking into several potential causes or contributing factors (e.g., chemicals, parasites, microorganisms), and other researchers are looking into other potential causes such as ultraviolet radiation. The MPCA is central to the work of solving the problem, because the largest number of reports of frog abnormalities continues to come from Minnesota.

What will the funds be used for?

- Three new positions at the MPCA to help with the frogs investigation.
- An investigation of the physical characteristics, for example water chemistry, of sites with the intent of comparing study and reference sites (i.e., those with established patterns of abnormalities and those that appear so far to be normal).
- Continued characterization of the incidence and severity of abnormalities around the state.
- Landscape analysis of specific sites to investigate the potential that human land-use activities may be a contributing factor in the abnormalities
- Coordination and communication between state agencies and national research efforts.

The MPCA and our various research partners have begun work on several fronts that will contribute to an important baseline understanding of the malformed frogs phenomenon. However, this level of effort cannot be sustained over the long term without continued funding. In the short term, this initiative will allow the state to follow up and continue on promising investigative leads already developed. In the longer term, it will help us provide information necessary to move toward solving an environmental problem of national and international scope. It will assure the public that the state is concerned with this problem and is responsibly investigating it at the level that public interest and the potential implications for human health demand.

For more information

For further information on this initiative, contact Margaret Velky at the MPCA, (612) 296-8834 or (800) 657-3864.